

THE DEPARTMENT OF DEFENSE

SMALL BUSINESS TECHNOLOGY TRANSFER (STTR) PROGRAM

PROGRAM SOLICITATION FY03

Closing Date: April 16, 2003

Participating DoD Components:

- Department of the Army
- Department of the Navy
- Department of the Air Force
- Defense Advanced Research Projects Agency (DARPA)
- Missile Defense Agency (MDA)

IMPORTANT

No Printed Solicitation Books. As previously announced, beginning October 2002, all DoD SBIR and STTR solicitations will be available in electronic format only from the DoD SBIR/STTR Website, in accordance with the Government Paperwork Elimination Act (GPEA).

<u>STTR and SBIR Updates and Notices</u>. To be notified of opportunities and to receive e-mail updates on the DoD SBIR and STTR programs, you are invited to subscribe to the DoD SBIR/STTR ListServ by e-mailing <u>sbirlist@listserv.dodsbir.net</u>.

<u>Help Desk</u>. If you have questions about the Defense Department's SBIR or STTR programs, please call the SBIR/STTR Help Desk at 866-SBIRHLP (866-724-7457), or visit the DoD SBIR/STTR Web Site, at http://www.acq.osd.mil/sadbu/sbir.

U.S. Department of Defense STTR Program Office Washington, DC 20301

January 2, 2003: Solicitation issued for pre-release

March 3, 2003: DoD begins accepting proposals

April 16, 2003: Deadline for receipt of proposals at 5pm EST

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D₀D PROGRAM SOLICITATION FOR SMALL BUSINESS TECHNOLOGY TRANSFER

1.0 PROGRAM DESCRIPTION

1.1 Introduction

The Army, Navy, Air Force, Defense Advanced Research Projects Agency (DARPA), and Missile Defense Agency (MDA) hereafter referred to as DoD Components, invite small business firms and research institutions to jointly submit proposals under this solicitation for the Small Business Technology Transfer (STTR) program. The STTR Program is a program under which awards are made to small business concerns for cooperative research and development, conducted jointly by a small business and a research institution, through a uniform process having three phases. STTR, although modeled substantially on the Small Business Innovation Research (SBIR) Program, is a separate program and is separately financed. Subject to availability of funds, DoD Components will support high quality cooperative research and development proposals of innovative concepts to solve the listed defense-related scientific or engineering problems, especially those concepts that also have high potential for commercialization in the private sector.

The STTR Program is designed to provide a strong incentive for small companies and researchers at research institutions, i.e., non-profit research institutions, contractor-operated federally funded research and development centers (FFRDCs), and universities, to work together as a team to move ideas from the research institution to the marketplace, to foster high-tech economic development, and to address the technological needs of our armed forces. (See <u>DoD's Critical Technology Areas</u>)

Partnerships between small businesses and Historically Black Colleges or Universities (HBCUs) or Minority Institutions (MIs) are encouraged, although no special preference will be given to STTR proposals from such offerors.

The Federal STTR Program is mandated by Public Laws 102-564 and 107-50. The basic design of the DoD STTR Program is in accordance with the Small Business Administration (SBA) STTR Policy Directive of 1993. The DoD Program presented in this solicitation strives to encourage scientific and technical innovation in areas specifically identified by DoD Components. The guidelines presented in this solicitation incorporate and exploit the flexibility of the SBA Policy Directive to encourage proposals based on scientific and technical approaches most likely to yield results important to DoD and the private sector.

1.2 Three Phase Program

This program solicitation is issued pursuant to the Small Business Research and Development Enhancement Act of 1992, PL 102-564. Phase I is to determine the scientific, technical and commercial merit and feasibility of the proposed cooperative effort and the quality of performance of the small business concern with a relatively small investment before consideration of future DoD support in Phase II. Several different proposed solutions to a given topic may be funded. Proposals will be evaluated on a competitive basis giving primary consideration to the scientific and technical merit of the proposal along with its potential for commercialization. Phase I awards are limited to \$100,000 in size over a period not to exceed one year.

Subsequent Phase II awards will be made to firms on the basis of results of their Phase I effort and the scientific, technical merit and commercial potential of their Phase II proposal. Phase II awards are limited to \$500,000 in size (however, beginning in 2004, Phase II awards will be limited to \$750,000) over a period generally not to exceed 24 months (subject to negotiation). Phase II is the principal research or research and development effort and is expected to produce a well-defined deliverable product or process.

Under Phase III, the small business is expected to use non-federal capital to pursue private sector applications of the research or development. Also, under Phase III, federal agencies may award non-STTR funded follow-on contracts for products or processes which meet the mission needs of those agencies.

DoD is not obligated to make any awards under either Phase I, II, or III. DoD is not responsible for any monies expended by the proposer before award of any contract.

1.3 Proposer Eligibility and Limitations

Each proposer must qualify as a small business for research or research and development purposes as defined in Section 2.3 and certify to this on the Cover Sheet of the proposal. In addition, a minimum of 40 percent of each STTR project must be carried out by the small business concern and a minimum of 30 percent of the effort performed by the research institution, as defined in Section 2.4. The percent of work is usually measured by both direct and indirect costs, although proposers planning to subcontract a significant fraction of their work should verify how it will be measured with their DoD contracting officer during contract negotiations. The principal investigator must be primarily employed with the small business firm or the research institution. At the time of award of a Phase I or Phase II contract, the small business concern must have at least one employee in a management position whose primary employment is with the small business and who is not also employed by the research institution. Primary employment means that more than one half of the employee's time is spent with the small business. Primary employment with a small business concern precludes full-time employment at another organization. For both Phase I and Phase II, all research or research and development work must be performed by the small business concern in the United States. "United States" means the fifty states, the territories and possessions of the Federal Government, the Commonwealth of Puerto Rico, the

Republic of the Marshall Islands, the Federated States of Micronesia, the Republic of Palau, and the District of Columbia. Deviations from the requirements in this paragraph must be approved in writing by the contracting officer (during contract negotiations).

A small business concern must negotiate a written agreement between the small business and the research institution allocating intellectual property rights and rights to carry out follow-on research, development, or commercialization (see: Model Agreement for the Allocation of Rights).

<u>Joint ventures</u> and <u>limited partnerships</u> are permitted for the small business portion, provided that the <u>entity created</u> qualifies as a small business in accordance with the Small Business Act, 15 USC 631, and the definition included in Section 2.3.

1.4 Conflicts of Interest

Awards made to firms owned by or employing current or previous Federal Government employees could create conflicts of interest for those employees in violation of federal law. Such proposers should contact the cognizant Ethics Counselor from the employees' Government agency for further guidance.

1.5 Questions about STTR and Solicitation Topics

- a. General STTR Questions/Information.
 - (1) **Help Desk**. The <u>DoD SBIR/STTR Help Desk</u> is prepared to address general questions about this solicitation, the proposal preparation and electronic submission process, contract negotiation, payment vouchers, Government accounting requirements, intellectual property protection, the Fast Track, financing strategies, and other program-related areas. The Help Desk may be contacted from 8am to 5pm EST by:

Phone: 866-SBIRHLP (866-724-7457) Email: <u>www.dodsbir.net/helpdesk</u>

- (2) Web Sites. The <u>DoD SBIR/STTR Web Site</u> at <u>www.acq.osd.mil/sadbu/sbir</u> offers electronic access to STTR and SBIR solicitations, answers to commonly asked questions, sample proposals, model contracts, abstracts of ongoing projects, the latest updates on the SBIR and STTR programs, hyperlinks to sources of business assistance and financing, and other useful information. The <u>DoD SBIR Resource Center</u> at <u>www.dodsbir.net</u> mirrors the most frequently accessed information on the DoD SBIR/STTR Web Site.
 - All Phase I and Phase II SBIR and STTR proposals, Company Commercialization Reports, and Fast Track Applications must be prepared through the <u>DoD Electronic Submission Site</u> at <u>www.dodsbir.net/submission</u>. Firms submitting through this site for the first time will be asked to register with their tax ID number and supply a point of contact at the firm.
- (3) ListServ. The DoD maintains a ListServ e-mail broadcast service. To stay in touch with STTR and SBIR opportunities and receive notices about upcoming conferences and solicitations, subscribe by emailing <u>listserv@listserv.dodsbir.net</u> and typing SUBSCRIBE SBIRLIST in the body of the message, or visit the Resource Center at <u>www.dodsbir.net</u>.
- b. **General Questions about a DoD Component**. General questions pertaining to a particular DoD Component (Army, Navy, Air Force, etc.) should be submitted in accordance with the instructions given at the beginning of that Component's topics, in Section 8.0 of this solicitation. Hyperlinks to Component SBIR websites are available from the DoD SBIR/STTR Web Site (above).
- c. Technical Questions about Solicitation Topics.
 - (1) **Direct Contact with Topic Authors**. From January 2, 2003 until March 2, 2003, this solicitation is issued for pre-release on the DoD SBIR/STTR Web Site (with the names of the topic authors and their phone numbers and email addresses, giving proposers an opportunity to ask technical questions about specific solicitation topics. Please note that you may talk or email topic authors to ask questions about the topics before you prepare a proposal only until March 2, 2003. Afterwards, written questions must be asked through SITIS, described below.
 - (2) SITIS. Once DoD begins accepting proposals on March 3, 2003, no further direct contact between proposers and the topic authors is allowed, but proposers may submit written questions through the SBIR/STTR Interactive Topic Information System (SITIS), in which the questioner and respondent remain anonymous and all questions and answers are posted electronically for general viewing. Proposers may submit written questions to SITIS via the Internet, e-mail, fax, mail, or telephone as follows:

Defense Technical Information Center

MATRIS Office, DTIC-AM ATTN: SITIS Coordinator NAS North Island, Box 357011 San Diego, CA 92135-7011

Phone: (619) 545-7529
Fax: (619) 545-0019
E-mail: sbir@dticam.dtic.mil
www: http://dtica.dtic.mil/sttr/

The SITIS service for this solicitation opens on or around January 20, 2003 and closes to new questions on April 3, 2003. SITIS will post all questions and answers on the Internet (see Solicitations on the DoD SBIR/STTR Web Site) from January 20, 2003 through April 16, 2003. (Answers will also be emailed or faxed directly to the inquirer provides an e-mail address or fax number.) Answers are generally posted within seven working days of question submission.

All proposers are advised to monitor SITIS during the solicitation period for questions and answers, and other information, relevant to the topic under which they are proposing.

1.6 SBIR/STTR Conferences and Outreach

The DoD co-sponsors two National SBIR/STTR Conferences a year and participates in many state-organized conferences for small business. Dates of upcoming National Conferences are March 11-14, 2003 in Albuquerque, New Mexico and April 22-24, 2003 in Washington, DC. For information on these events, see "Conferences" on our Web Site or Resource Center. We have a special outreach effort to women-owned small businesses and socially and economically disadvantaged small businesses and research institutions.

2.0 DEFINITIONS

The following definitions apply for the purposes of this solicitation:

2.1 Research or Research and Development

Basic Research - Scientific study and experimentation to provide fundamental knowledge required for the solution of problems.

Exploratory Development - A study, investigation or minor development effort directed toward specific problem areas with a view toward developing and evaluating the feasibility and practicability of proposed solutions.

Advanced Development - Proof of design efforts directed toward projects that have moved into the development of hardware for test.

Engineering Development - Full-scale engineering development projects for DoD use but which have not yet received approval for production.

2.2 Cooperative Research and Development.

For the purposes of the STTR Program this means research and development conducted jointly by a small business concern and a research institution in which not less than 40 percent of the work is performed by the small business concern, and not less than 30 percent of the work is performed by the research institution. The percent of work is usually measured by both direct and indirect costs; however, proposers should verify how it will be measured with their DoD contracting officer during contract negotiations.

2.3 Small Business

A small business concern is one that, at the time of award of a Phase I or Phase II contract:

- a. is organized for profit, with a place of business located in the United States, which operates primarily within the United States or which makes a significant contribution to the United States economy through payment of taxes or use of American products, materials, or labor;
- b. is in the legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust or cooperative, except that where the form is a joint venture, there can be no more than 49 percent participation by foreign business entities in the joint venture;
- c. is a least 51 percent owned and controlled by one or more individuals who are citizens of, or permanent resident aliens in, the United States, except in the case of a joint venture, where each entity to the venture must be 51 percent owned and controlled by one or more individuals who are citizens of, or permanent resident aliens in, the United States; and
- d. has, including its affiliates, not more than 500 employees.

2.4 Research Institution. Any organization located in the United States that is:

- a. A university.
- b. A nonprofit institution as defined in section 4(5) of the Stevenson-Wydler Technology Innovation Act of 1980.
- c. A contractor-operated federally funded research and development center, as identified by the National Science Foundation in accordance with the government-wide Federal Acquisition Regulation issued in accordance with section 35(c)(1) of the Office of Federal Procurement Policy Act. (Click here for a list of eligible FFRDCs.)

2.5 Socially and Economically Disadvantaged Small Business

A small business that is at the time of award of a Phase I or Phase II contract, at least 51% owned by one or more socially and economically disadvantaged individuals, as defined in 13 CFR Part 124 - 8(A) Business Development/Small Disadvantaged Business Status Determinations, §124.103 ("Who is socially disadvantaged?") and §124.104 ("Who is economically disadvantaged?").

2.6 Women-Owned Small Business

A women-owned small business is one that is at least 51% owned by one or more women, or in the case of a publicly owned business, at least 51% of the stock of which is owned by women, and who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management of the business.

2.7 Funding Agreement

Any contract, grant, or cooperative agreement entered into between any Federal Agency and any small business concern for the performance of experimental, developmental, or research work funded in whole or in part by the federal Government. *Only the contract method will be used by DoD components for all STTR awards*.

2.8 Subcontract

A subcontract is any agreement, other than one involving an employer-employee relationship, entered into by a Federal Government contract awardee calling for supplies or services required solely for the performance of the original funding agreement. This includes consultants.

2.9 Commercialization

The process of developing marketable products or services and delivering products and services for sale (whether by the originating party or by others) to Government or commercial markets.

2.10 Essentially Equivalent Work

This occurs when (1) substantially the same research is proposed for funding in more than one contract proposal or grant application submitted to the same Federal agency; (2) substantially the same research is submitted to two or more different Federal agencies for review and funding consideration; or (3) a specific research objective and the research design for accomplishing an objective are the same or closely related in two or more proposals or awards, regardless of the funding source.

2.11 HBCU/MI

Listings for the Historically Black Colleges and Universities (HBCU) and Minority Institutions (MI) are available through the DTIC website, http://www.dtic.mil/dtic/hbcu.html.

2.12 Historically Underutilized Business Zone (HUBZone) Small Business Concern

HUBZone small business concern means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration. See www.sba.gov/hubzone for more details.

3.0 PROPOSAL PREPARATION INSTRUCTIONS AND REQUIREMENTS

3.1 Proposal Requirements

A proposal to any DoD Component under the STTR Program is to provide sufficient information to persuade the DoD Component that the proposed work represents an innovative approach to the investigation of an important scientific or engineering problem and is worthy of support under the stated criteria.

The quality of the scientific or technical content of the proposal will be the principal basis upon which proposals will be evaluated. The proposed research or research and development must be responsive to the chosen topic, although need not use the exact approach specified in the topic (see Section 4.1). Any small business contemplating a bid for work on any specific topic should determine that (a) the technical approach has a reasonable chance of meeting the topic objective, (b) this approach is innovative, not routine, and (c) the firm has the capability to implement the technical approach, i.e. has or can obtain people and equipment suitable to the task.

It should be recognized that while the STTR Program requires a small business and a research institution to undertake a project cooperatively, the Federal contract is with the small business. The small business, and not the research institution, is to provide satisfactory evidence that it will exercise management direction and control of the performance of the STTR funding agreement. Regardless of the proportion of the work or funding of each of the performers under the contract, the small business is to be primary contractor with overall responsibility for its performance.

3.2 Proposal Checklist. Those responding to this solicitation should note the proposal preparation tips listed below:

- 1) Read and follow all instructions contained in this solicitation, including the instructions in Section 8.0 of the DoD component to which you are applying.
- 2) Use the free technical information services from DTIC and other information assistance organizations (Section 7.1 7.4).
- 3) Register your firm on the secure password-protected DoD Electronic Submission Web Site (http://www.dodsbir.net/submission) and, as instructed on the Web Site, prepare your proposal. A complete proposal consists of the proposal cover sheets, technical proposal, cost proposal, and Company Commercialization Report.
- 4) The proposal cost adheres to the Component criteria specified and the cost on the cover sheets matches the cost on the cost proposal.
- 5) The proposal is limited to only ONE solicitation topic.
- 6) The Project Summary on the cover sheets contains NO proprietary information. Mark proprietary information within the technical proposal as instructed in Section 5.6.
- 7) The content in the technical proposal, including the option (if applicable), includes the items in Section 3.5.b.
- 8) The header on each page of your technical proposal should contain your company name, topic number, and proposal number. (The header may be included in the one-inch margins).
- 9) The Company Commercialization Report is submitted online in accordance with Section 3.5.d. This report is required even if the firm has not received prior SBIR funding.
- 10) Limit your proposal to 25 pages (excluding Company Commercialization Report).
- 11) Use a type size no smaller than a 10-point font.
- 12) The technical proposal shall not be in 2-column format.

Note: Public access to the internet is available at most public libraries, local schools or a Small Business Development Center (SBDC) in your area. If you have any questions, please contact the DoD Help Desk 866-SBIRHLP (866-724-7457).

3.3 Proprietary Information

If information is provided which constitutes a trade secret, proprietary commercial or financial information, confidential personal information, or data affecting the national security, it will be treated in confidence to the extent permitted by law, provided it is clearly marked in accordance with Section 5.6. The cost proposal information, will be treated as proprietary whether or not it is indicated.

3.4 Limitations on Length of Proposal

This solicitation is designed to reduce the investment of time and cost to small firms in preparing a formal proposal. Those who wish to respond must submit a direct, concise, and informative research or research and development proposal of no more than 25 pages, excluding Company Commercialization Report, (no type smaller than 10-point on standard 8 1/2 " X 11" paper with one (1) inch margins), *including Proposal Cover Sheet, Cost Proposal, and any enclosures or attachments.* Promotional and non-project related discussion is discouraged. The space allocated to each will depend on the problem chosen and the principal investigator's approach. In the interest of equity, proposals in excess of the 25-page limitation (including attachments, appendices, or references, but excluding Company Commercialization Report) will not be considered for review or award.

3.5 Phase I Proposal Format

a. **Proposal Cover Sheets**. On the DoD Electronic Submission Web Site (www.dodsbir.net/submission), prepare Proposal Cover Sheets, including a brief technical abstract of the proposed R&D project and a discussion of anticipated benefits and potential commercial applications. Your cover sheets will count as the first two pages of your proposal no matter how they print out. If your proposal is selected for award, the technical abstract and discussion of anticipated benefits will be publicly released on the Internet; therefore, do not include proprietary or classified information in these sections.

Through the signature of the Corporate Official of the small business concern and the signature of the appropriate official of the research institution on the Proposal Cover Sheet, the small business concern AND the research institution certify jointly that:

- (1) The proposing firm meets the definition of small business concern found in section 2.3, the proposing institution meets the definition of research institution found in section 2.4, and the proposed STTR project meets the definition of cooperative research and development as defined in section 2.2, and
- (2)Regardless of the proportion of the proposed project to be performed by each party, the small business concern will be the primary party that will exercise management direction and control of the performance of the STTR award.
- (3) At the time of award, the small business concern will have at least one employee in a management position whose primary employment is with the small business and who is not also employed by the research institution.

If the research institution is a contractor-operated Federally funded research and development center, the appropriate official signing for the contractor-operated Federally funded research and development center certifies <u>additionally</u> that it:

- (4) Is free from organizational conflicts of interests relative to the STTR program;
- (5) Did not use privileged information gained through work performed for an STTR agency or private access to STTR agency personnel in the development of this STTR proposal; and
- (6) Used outside peer review as appropriate, to evaluate the proposed project and its performance therein.

For Components requiring proposal submission by mail (see Section 8.0), print out a hard copy of the Proposal Cover Sheet from the Web Site and include it, with the appropriate signatures, as the first two pages of your proposal. Also include a copy of the signed Proposal Cover Sheet in the additional copies of the proposal that you submit per Section 6.0 of this solicitation.

- b. **Technical Proposal**. Covers the following items in the order given below. Begin your technical proposal on Page 3 (since the cover sheets are pages 1 and 2). To electronically submit your technical proposal, first create the cover sheet and then upload the technical proposal file in Portable Document Format (PDF) onto the DoD Electronic Submission website. Perform a virus check before uploading the technical proposal file. If a virus is detected, it may cause rejection of the proposal. The technical proposal should be a <u>single</u> file, including graphics and attachments (and cost proposal if not using the Web Site's online cost proposal form).
 - (1) **Identification and Significance of the Problem or Opportunity**. Define the specific technical problem or opportunity addressed and its importance. (Begin on Page 3 of your proposal.)
 - (2) **Phase I Technical Objectives**. Enumerate the specific objectives of the Phase I work, including the questions it will try to answer to determine the feasibility of the proposed approach.
 - (3) **Phase I Work Plan**. Provide an explicit, detailed description of the Phase I approach. If a Phase I option is required or allowed by the Component to which you are submitting, it should describe appropriate research activities which would commence at the end of the Phase I should the Component elect to exercise the option. The plan should indicate what is planned, how and where the work will be carried out, a schedule of major events, and the final product to be delivered. The Phase I effort should attempt to determine the technical feasibility of the proposed concept. The methods planned to achieve each objective or task should be discussed explicitly and in detail. This section should be a substantial portion of the total proposal.
 - (4) **Related Work**. Describe significant activities directly related to the proposed effort, including any conducted by the principal investigator, the proposing firm, consultants, or others. Describe how these activities interface with the proposed project and discuss any planned coordination with outside sources. The proposal must persuade reviewers of the proposer's awareness of the state-of-the-art in the specific topic.

Describe previous work not directly related to the proposed effort but similar. Provide the following: (1) short description, (2) client for which work was performed (including individual to be contacted and phone number), and (3) date of completion.

(5) Relationship with Future Research or Research and Development.

- (1) State the anticipated results of the proposed approach if the project is successful.
- (2) Discuss the significance of the Phase I effort in providing a foundation for Phase II research or research and development effort.

- (6) Commercialization Strategy. Describe in approximately one page your company's strategy for commercializing this technology in DoD and/or private sector markets. Provide specific information on the market need the technology will address and the size of the market. Also include a schedule showing the quantitative commercialization results from this STTR project that your company expects to achieve and when (i.e., amount of additional investment, sales revenue, etc. see Section 5.4).
- (7) **Key Personnel**. Identify key personnel who will be involved in the Phase I effort including information on directly related education and experience. A concise resume of the principal investigator, including a list of relevant publications (if any), must be included. All resumes will count toward the 25-page limitation. Identify any foreign nationals you expect to be involved on this project, country of origin and level of involvement.
- (8) Facilities/Equipment. Describe available instrumentation and physical facilities necessary to carry out the Phase I effort. Items of equipment to be purchased (as detailed in the cost proposal) shall be justified under this section. Also state whether or not the facilities where the proposed work will be performed meet environmental laws and regulations of federal, state (name), and local Governments for, but not limited to, the following groupings: airborne emissions, waterborne effluents, external radiation levels, outdoor noise, solid and bulk waste disposal practices, and handling and storage of toxic and hazardous materials.
- (9) Subcontactors/Consultants. All subcontractors, including the research institution partner, must be identified and described according to the <u>Cost Breakdown Guidance</u>. The STTR program may only make awards to small businesses; therefore, the research institution must have a subcontracting arrangement with the small business. More than one subcontractor is allowed; however, the small business must perform at least 40% of the effort and the research institution listed on Proposal Cover Sheet must perform at least 30% of the work. Subcontractor costs and consultant costs must be detailed at the same level as prime contractor costs in accordance with the <u>Cost Breakdown Guidance</u> (in regards to labor, travel, equipment, etc.).
- (10) **Prior, Current, or Pending Support of Similar Proposals or Awards**. *Warning* -- While it is permissible, with proposal notification, to submit identical proposals or proposals containing a significant amount of essentially equivalent work (see section 2.8) for consideration under numerous federal program solicitations, it is unlawful to enter into contracts or grants requiring essentially equivalent effort. If there is any question concerning this, it must be disclosed to the soliciting agency or agencies before award.

If a proposal submitted in response to this solicitation is substantially the same as another proposal that has been funded, is now being funded, or is pending with another Federal Agency or DoD Component or the same DoD Component, the proposer must so indicate on the Proposal Cover Sheet and provide the following information:

- (a) Name and address of the Federal Agency(s) or DoD Component to which a proposal was submitted, will be submitted, or from which an award is expected or has been received.
- (b) Date of proposal submission or date of award.
- (c) Title of proposal.
- (d) Name and title of principal investigator for each proposal submitted or award received.
- (e) Title, number, and date of solicitation(s) under which the proposal was submitted, will be submitted, or under which award is expected or has been received.
- (f) If award was received, state contract number.
- (g) Specify the applicable topics for each STTR proposal submitted or award received.

Note: If Section 3.4.b(10) does not apply, state in the proposal "No prior, current, or pending support for proposed work."

- c. Cost Proposal. Complete the cost proposal in the format shown in the Cost Breakdown Guidance, either using the online cost proposal form on the DoD Electronic Submission Web Site or as the last page(s) of your technical proposal. Some items in the Cost Breakdown Guidance may not apply to the proposed project. If such is the case, there is no need to provide information on each and every item. What matters is that enough information be provided to allow the DoD Component to understand how the proposer plans to use the requested funds if the contract is awarded.
 - (1) List all key personnel by <u>name</u> as well as by number on <u>hours</u> dedicated to the project as direct labor.
 - (2) Special tooling and test equipment and material cost may be included under Phases I and II. The inclusion of equipment and material will be carefully reviewed relative to need and appropriateness for the work proposed. The purchase of special tooling and test equipment must, in the opinion of the Contracting Officer, be advantageous to the Government and should be related directly to the specific topic. These may include such items as innovative instrumentation and/or automatic test equipment. Title to property furnished by the Government or acquired with Government funds will be vested with the DoD Component, unless it is determined

- that transfer of title to the contractor would be more cost effective than recovery of the equipment by the DoD Component.
- (3) Cost for travel funds must be justified and related to the needs of the project.
- (4) Cost sharing is permitted for proposals under this solicitation; however, cost sharing is not required nor will it be an evaluation factor in the consideration of a Phase I proposal.
- (5) A Phase I Option (if applicable) should be fully costed separately from the Phase I (base) approach. For Phase I, the on-line cost proposal form (if applicable) will count as one page no matter how it prints out. Additional cost proposal information may be required at the end of your technical proposal (See Component Instructions, Section 8.0).
- (6) All subcontractor costs, including those of the research institution partner, and consultant costs must be detailed at the same level as prime contractor costs in regards to labor, travel, equipment, etc.

When a proposal is selected for award, the proposer should be prepared to submit further documentation to its DoD contracting officer to substantiate costs (e.g., a brief explanation of cost estimates for equipment, materials, and consultants or subcontractors).

d. Company Commercialization Report. If your firm is submitting a Phase I or Phase II proposal, it is required to prepare a Company Commercialization Report through the password-protected DoD Electronic Submission Web Site (www.dodsbir.net/submission). If you submit a proposal, you must submit a company commercialization report whether or not you have previously received SBIR or STTR awards. As instructed on the Web Site, list in the Report the quantitative commercialization results of your firm's prior Phase II projects, including the items listed in section 5.4 of this solicitation (sales revenue, additional investment, etc.). The Web Site will then compare these results to the historical averages for the DoD SBIR/STTR Program to calculate a Commercialization Achievement Index (CAI) value. Only firms with five or more completed Phase II projects will receive a CAI score; otherwise the CAI is N/A. Firms with a CAI at the 5th percentile or below may receive no more than half of the evaluation points available for commercial potential criteria (see Section 4.4). For Components requiring proposal submission by mail (see Section 8.0) print out a hard copy of the Report, and attach it to the back of your proposal. This report need only be prepared once and submitted with all your proposals for this solicitation.

As noted on the Web Site, your firm may also, at its option, include at the end of the Report additional, explanatory material (no more than five pages) relating to the firm's record of commercializing its prior SBIR or STTR projects, such as: commercialization successes (in government and/or private sector markets) that are not fully captured in the quantitative results (e.g. commercialization resulting from your firm's prior Phase I projects); any mitigating factors that could account for low commercialization; and recent changes in the firm's organization or personnel designed to increase the firm's commercialization success. The Company Commercialization Report and additional explanatory material (if any) will not be counted toward the 25-page limit for Phase I proposals. A Report showing that a firm has received no prior Phase II awards will not affect the firm's ability to obtain an STTR award.

- e. **Agreement between the Small Business and Research Institution.** The small business must negotiate a written agreement with the research institution allocating intellectual property rights and rights, if any, to carry out follow-on research, development, or commercialization. The agreement must be finalized and signed by both parties no later than 15 days after the small business receives notification that it has been selected for a Phase I STTR award. The small business must submit this agreement to the awarding agency on request and certify in all proposals that the agreement is satisfactory to the small business. The agreement should, as a minimum, state:
- (1) Specifically the degree of responsibility and ownership of any product, process, or other invention or innovation resulting from the cooperative research. The degree of responsibility shall include responsibility for expenses and liability, and the degree of ownership shall also include the specific rights to revenues and profits.
- (2) Which party may obtain U.S. or foreign patents or otherwise protect any inventions resulting from the cooperative research.
- (3) Which party has the right to any continuation of research including non-STTR follow-on awards.
 - See: Model Agreement for the Allocation of Rights for a guideline or model for such an agreement.

The Federal government will not normally be party to any agreement between the small business concern and the research institution. Nothing in the agreement is to conflict with any provisions setting forth the respective rights of the United States and the small business with respect to intellectual property rights and with respect to any right to carry out follow-on research. All agreements between the small business and the research institution cooperating in the STTR projects, or any business plans reflecting agreements and responsibilities between the parties during the performance of Phase I or II, or for the commercialization of the resulting technology, shall reflect the controlling position of the small business.

3.6 Page Numbering and Bindings

Number all pages of your proposal consecutively. The cover sheets are pages 1 and 2. The technical proposal begins on page 3. For Components requiring hardcopy, do not use special bindings or covers. Staple the pages in the upper left hand corner of each proposal.

3.7 Phase II Proposal Format

This solicitation is for Phase I only. A Phase II proposal can be submitted only by a Phase I awardee and only in response to a request from the agency; that is, Phase II is not initiated by a solicitation.

Each Phase II proposal must contain a Proposal Cover Sheet, technical proposal, cost proposal and a Company Commercialization Report (see Section 3.4). In addition, each Phase II proposal must contain a two-page commercialization strategy, addressing the following questions:

- (1) What is the first product that this technology will go into?
- (2) Who will be your customers, and what is your estimate of the market size?
- (3) How much money will you need to bring the technology to market, and how will you raise that money?
- (4) Does your company contain marketing expertise and, if not, how do you intend to bring that expertise into the company?
- (5) Who are your competitors, and what is your price and/or quality advantage over your competitors?

The commercialization strategy must also include a schedule showing the quantitative commercialization results from the Phase II project that your company expects to report in its Company Commercialization Report Updates one year after the start of Phase II, at the completion of Phase II, and after the completion of Phase II (i.e., amount of additional investment, sales revenue, etc. - see section 5.4).

Additional instructions regarding Phase II proposal preparation and submission will be provided or made available by the DoD Components to all Phase I winners at time of Phase I contract award.

3.8 False Statements

Knowingly and willfully making any false, fictitious, or fraudulent statements or representations may be a felony under the Federal Criminal False Statement Act (18 U.S.C. Sec 1001), punishable by a fine of up to \$10,000, up to five years in prison, or both

4.0 METHOD OF SELECTION AND EVALUATION CRITERIA

4.1 Introduction

Phase I proposals will be evaluated on a competitive basis and will be considered to be binding for six (6) months from the date of closing of this solicitation unless the offeror states otherwise. If selection has not been made prior to the proposal's expiration date, offerors will be requested as to whether or not they want to extend their proposal for an additional period of time. Proposals meeting stated solicitation requirements will be evaluated by scientists or engineers knowledgeable in the topic area. Proposals will be evaluated first on their relevance to the chosen topic. A proposal that meets the goals of a solicitation topic but does not use the exact approach specified in the topic will be considered relevant. (Prospective proposers should contact the topic author as described in Section 1.5 to determine whether submission of such a proposal would be useful.)

Proposals found to be relevant will then be evaluated using the criteria listed in Section 4.2. Final decisions will be made by the DoD Component based upon these criteria and consideration of other factors including possible duplication of other work, and program balance. A DoD Component may elect to fund several or none of the proposed approaches to the same topic. In the evaluation and handling of proposals, every effort will be made to protect the confidentiality of the proposal and any evaluations. There is no commitment by the DoD Components to make any awards on any topic, to make a specific number of awards or to be responsible for any monies expended by the proposer before award of a contract.

For proposals that have been selected for contract award, a Government Contracting Officer will draw up an appropriate <u>contract</u> to be signed by both parties before work begins. Any negotiations that may be necessary will be conducted between the <u>offeror</u> and the Government Contracting Officer. It should be noted that <u>only a duly appointed contracting officer</u> has the authority to enter into a contract on behalf of the U.S. Government.

Prior to receiving a contract award, the offeror must be registered in the Central Contractor Registration (CCR) database. For information regarding registration, call 1-888-227-2423 or visit www.ccr.gov (see Section 5.14).

Phase II proposals will be subject to a technical review process similar to Phase I. Final decisions will be made by DoD Components based upon the scientific and technical evaluations and other factors, including a commitment for Phase III follow-on funding, the possible duplication with other research or research and development, program balance, budget limitations, and the potential of a successful Phase II effort leading to a product of continuing interest to DoD. DoD is not obligated to make any awards under Phase II or the Fast Track, and all awards are subject to the availability of funds. DoD is not responsible for any monies expended by the proposer before award of a contract.

<u>Upon written request</u> and after final award decisions have been announced, a debriefing will be provided to unsuccessful offerors on their proposals (See Section 6.5).

4.2 Evaluation Criteria - Phase I

The DoD Components plan to select for award those proposals offering the best value to the Government and the nation considering the following factors.

- a. The soundness, technical merit, and innovation of the proposed approach and its incremental progress toward topic or subtopic solution.
- b. The qualifications of the proposed principal/key investigators, supporting staff, and consultants. Qualifications include not only the ability to perform the research and development but also the ability to commercialize the results.
- c. The potential for commercial (Government or private sector) application and the benefits expected to accrue from this commercialization.

Where technical evaluations are essentially equal in merit, cost to the Government will be considered in determining the successful offeror.

Technical reviewers will base their conclusions only on information contained in the proposal. It cannot be assumed that reviewers are acquainted with the firm or key individuals or any referenced experiments. Relevant supporting data such as journal articles, literature, including Government publications, etc., should be contained or referenced in the proposal and will count toward the 25-page limit.

4.3 Evaluation Criteria - Phase II

The Phase II proposal will be reviewed for overall merit based upon the criteria below.

- a. The soundness, technical merit, and innovation of the proposed approach and its incremental progress toward topic or subtopic solution.
- b. The qualifications of the proposed principal/key investigators, supporting staff, and consultants. Qualifications include not only the ability to perform the research and development but also the ability to commercialize the results
- c. The potential for commercial (Government or private sector) application and the benefits expected to accrue from this commercialization.

The reasonableness of the proposed costs of the effort to be performed will be examined to determine those proposals that offer the best value to the Government. Where technical evaluations are essentially equal in merit, cost to the Government will be considered in determining the successful offeror.

Phase II proposal evaluation may include on-site evaluations of the Phase I effort by Government personnel.

<u>Fast Track Phase II proposals</u>. Under the regular Phase II evaluation process, the above three criteria are each given roughly equal weight (with some variation across the DoD Components). For projects that qualify for the Fast Track (as discussed in Section 4.5), DoD will evaluate the Phase II proposals under a separate, expedited process in accordance with the above criteria, and may select these proposals for Phase II award provided:

- (1) they meet or exceed criteria (a) and (b); and
- (2) the project has substantially met its Phase I technical goals

(and assuming budgetary and other programmatic factors are met, as discussed in Section 4.1). Fast Track proposals, having attracted matching cash from an outside investor, presumptively meet criterion (c). Selection and award of a Fast Track proposal is not mandated and DoD retains the discretion not to select or fund any Fast Track proposal.

4.4 Assessing Commercial Potential of Proposals

A Phase I or Phase II proposal's commercial potential will be assessed using the following criteria:

- a. The proposer's commercialization strategy (see Section 3.5) and, as discussed in that strategy: (1) any commitments of additional investment in the technology during Phase II from the private sector, DoD prime contractors, non-SBIR/STTR DoD programs, or other sources, and (2) any Phase III follow-on funding commitments; and
- b. The proposer's record of commercializing its prior SBIR and STTR projects, as shown in its Company Commercialization Report (see Section 3.5). If the "Commercialization Achievement Index" (CAI) shown on the first page of the Report is at the 5th percentile or below, the proposer will receive no more than half of the evaluation points available under evaluation criterion c in Sections 4.2 and 4.3 ("potential for commercialization"), unless the STTR program manager for the DoD Component receiving the proposal recommends, in writing, that an exception be made for that proposer, and the contracting officer approves the exception.

A Company Commercialization Report showing that the proposing firm has no prior Phase II awards will not affect the firm's ability to win an award. Such a firm's proposal will be evaluated for commercial potential based on its commercialization strategy in item a, above.

4.5 STTR Fast Track

a. **In General**. The DoD STTR program has implemented a streamlined Fast Track process for STTR projects that attract matching cash from an outside investor for the Phase II STTR effort (as well as for the interim effort between Phases I and II). The purpose is to focus STTR funding on those projects that are most likely to be developed into viable new products that DoD and others will buy and that will thereby make a major contribution to U.S. military and/or economic capabilities.

Outside investors, as defined in <u>DoD's Fast Track Guidance</u>, may include such entities as another company, a venture capital firm, an individual investor, or a non-SBIR, non-STTR government program; they do not include the owners of the small business, their family members, and/or affiliates of the small business.

As discussed in detail below, projects that obtain matching funds from outside investors and thereby qualify for the STTR Fast Track will (subject to the qualifications described herein):

- (1) Receive interim funding of \$30,000 to \$50,000 between Phases I and II;
- (2) Be evaluated for Phase II award under a separate, expedited process; and
- (3) Be selected for Phase II award provided they meet or exceed a threshold of "technically sufficient" and have substantially met their Phase I technical goals (and assuming other programmatic factors are met), as described in Section 4.3.

Consistent with DoD policy, this process should prevent any significant gaps in funding between Phases I and II for Fast Track projects. All DoD Components administer the Fast Track according to the procedures in this section.

b. How To Qualify for the STTR Fast Track. To qualify for the STTR Fast Track, a company must submit a Fast Track application within 150 days after the effective start date of its Phase I contract, unless a different deadline for Fast Track applications is specified by the DoD Component funding the project (see the Fast Track Application Form on www.dodsbir.net/submission - the deadlines range from 120 to 180 days). The company is encouraged to discuss the application with its Phase I technical monitor; however, it need not wait for an invitation from the technical monitor to submit either a Fast Track application or a Fast Track Phase II proposal. The awardee should contact their Phase I technical monitor for further instructions and guidance.

A Fast Track application consists of the following items:

- (1) A completed Fast Track application form submitted electronically on the DoD Electronic Submission Web Site (www.dodsbir.net/submission). On the application form, the company and its outside investor must:
 - (a) State that the outside investor will match both interim and Phase II STTR funding, in cash, contingent on the company's selection for Phase II award. The matching rates needed to qualify for the Fast Track are as follows:
 - For companies that have never received a Phase II STTR award from DoD or any other federal agency, the minimum matching rate is <u>25 cents for every STTR dollar</u>. (For example, if such a company receives interim and Phase II STTR funding that totals \$500,000, it must obtain matching funds from the investor of \$125,000.)
 - For all other companies, the minimum matching rate is 1 dollar for every STTR dollar. (For example, if such a company receives interim and Phase II STTR funding that totals \$500,000, it must obtain matching funds from the investor of \$500,000.)
 - (b) Certify that the outside funding proposed in the application qualifies as a "Fast Track investment," and the investor qualifies as an "outside investor," as defined in <u>DoD Fast Track Guidance</u>.
- (2) A letter from the outside investor to the company, containing:
 - (a) A commitment to match both interim and Phase II STTR funding, in cash, contingent on the company's selection for Phase II award.
 - (b) A brief statement (less than one page) describing that portion of the effort that the investor will fund. The investor's funds may pay for additional research and development on the company's STTR project or, alternatively, they may pay for other activities not included in the Phase II contract's statement of work, provided these activities further the development and/or commercialization of the technology (e.g., marketing).
 - (c) A brief statement (less than one page) describing (i) the investor's experience in evaluating companies' ability to successfully commercialize technology; and (ii) the investor's assessment of the market for this particular STTR technology, and of the ability of the company to bring this technology to market.
- (3) A concise statement of work for the interim STTR effort (less than four pages) and detailed cost proposal (less than one page). Note: if the company has already negotiated an interim effort (e.g., an "option") of \$30,000 to \$50,000 with DoD as part of its Phase I contract, it need only cite that section of its contract, and need not submit an additional statement of work and cost proposal.

As indicated on the Web Site, the company should send its Fast Track application, including the three items listed above, to its Phase I technical monitor and a copy to the appropriate Component program manager. Also, send a copy of the application form only to the DoD STTR program manager.

Also, in order to qualify for the Fast Track, the company:

- (1) Must submit its Phase II proposal within 180 days after the effective start date of its Phase I contract, unless a different deadline for Fast Track Phase II proposals is specified by the DoD Component funding the contract (see the Fast Track Application Form at www.dodsbir.net/submission the deadlines range from 150 days to 210 days).
- (2) Must submit its Phase I final report by the deadline specified in its Phase I contract, but not later than 210 days after the effective start date of the contract (for the Air Force, not later than 270 days).
- (3) Must certify, within 45 days after being notified that it has been selected for Phase II award, that the entire amount of the matching funds from the outside investor has been transferred to the company. Certification consists of a letter, signed by both the company and its outside investor, stating that "\$______ in cash has been transferred to our company from our outside investor in accord with the STTR Fast Track procedures." The letter must be sent to the DoD contracting office along with a copy of the company's bank statement showing the funds have been deposited. IMPORTANT: If the DoD contracting office does not receive, within the 45 days, this certification showing the transfer of funds, the company will be ineligible to compete for a Phase II award not only under the Fast Track but also under the regular Phase II competition, unless a specific written exception is granted by the Component's STTR program manager. Before signing the certification letter, the company and investor should read the cautionary note at Section 3.8. If the outside investor is a non-SBIR/non-STTR DoD program, it must provide a line of accounting within the 45 days that can be accessed immediately.

Failure to meet these conditions in their entirety and within the time frames indicated will generally disqualify a company from participation in the STTR Fast Track. Deviations from these conditions must be approved in writing by the contracting office.

c. **Benefits of Qualifying for the Fast Track**. If a project qualifies for the Fast Track:

(1) It will receive interim STTR funding of \$30,000 to \$50,000, commencing approximately at the end of Phase I. Consistent with DoD policy, the vast majority of projects that qualify for the Fast Track should receive

- interim STTR funding. However, the DoD contracting office has the discretion and authority, in any particular instance, to deny interim funding when doing so is in the Government's interest (e.g., when the project no longer meets a military need or the statement of work does not meet the threshold of "technically sufficient" as described in Section 4.3).
- (2) DoD will evaluate the Fast Track Phase II proposal under a separate, expedited process, and may select the proposal for Phase II award provided it meets or exceeds evaluation criteria (a) and (b), as described in Section 4.3 (assuming budgetary and other programmatic factors are met, as discussed in Section 4.1). However, DoD is not obligated, in any particular instance, to award a Phase II contract to a Fast Track project, and DoD is not responsible for any funds expended by the proposer before award of a contract.
- (3) It will receive notification, no later than ten weeks after the completion of its Phase I project, of whether it has been selected for a Phase II award.
- (4) If selected, it will receive its Phase II award within an average of five months from the completion of its Phase I project.
- d. **Additional Reporting Requirement**. In the company's final Phase II progress report, it must include a brief accounting (in the company's own format) of how the investor's funds were expended to support the project.

5.0 CONTRACTUAL CONSIDERATIONS

Note: Eligibility and Limitation Requirements (Section 1.3) Will Be Enforced

5.1 Awards (Phase I)

- a. **Number of Phase I Awards**. The number of Phase I awards will be consistent with the agency's RDT&E budget, the number of anticipated awards for interim Phase I modifications, and the number of anticipated Phase II contracts. No Phase I contracts will be awarded until all qualified proposals (received in accordance with Section 6.2) on a specific topic have been evaluated. Normally proposers will be notified of selection/non-selection status for a Phase I award within six months of the proposal's closing date.
- b. **Type of Funding Agreement**. All winning proposals will be funded under negotiated contracts and may include a reasonable fee or profit consistent with normal profit margins provided to profit-making firms for R/R&D work. The firm fixed price, purchase order, or cost plus fixed fee type contract will be used for all Phase I projects (see Section 5.5).
- c. **Average Dollar Value of Awards**. P.L. 107-50 allows DoD Components to award Phase I contracts to small businesses generally up to \$100,000 without justification and not to exceed 12 months (subject to negotiation). The typical size of award varies across the DoD Components; it is therefore important for a proposer to read the introductory page of the Component to which it is applying (in Section 8.0) for any specific instructions regarding award size.
- d. **Timing of Phase I Awards**. Across DoD, the median time between the date that the STTR solicitation closes and the award of a Phase I contract is 4 months.

5.2 Awards (Phase II)

- a. **Number of Phase II Awards**. The number of Phase II awards will depend upon the results of the Phase I efforts and the availability of funds. *The DoD Components anticipate that approximately 40 percent of its Phase I awards will result in Phase II projects. This is merely an advisory estimate and the government reserves the right and discretion not to award to any or to award less than this percentage of Phase II projects.*
- b. Type of Funding Agreement. Each Phase II proposal selected for award will be funded under a negotiated contract and may include a reasonable fee or profit consistent with normal profit margins provided to profit-making firms for R/R&D work.
- c. **Average Dollar Value of Awards**. Phase II awards will be made to small businesses based on results of the Phase I efforts and the scientific, technical, and commercial merit of the Phase II proposal. Average Phase II awards will typically cover 2 to 5 person-years of effort over a period generally not to exceed 24 months (subject to negotiation). PL 107-50 states that Phase II awards may be up to \$500,000 each without justification (and beginning in FY04, up to \$750,000 without justification). See special instructions for each DoD Component in Section 8.
- d. **Timing of Phase II Awards**. Across DoD, the median time between DoD's receipt of a Phase II proposal and the award of a Phase II contract is 6.5 months

5.3 Phase I Report

a. **Content.** A final report is required for each Phase I project. The report must contain in detail the project objectives, work performed, results obtained, and estimates of technical feasibility. A completed SF 298, "Report Documentation Page", will be used as the first page of the report. (The Report Documentation Page may be prepared and printed from the DoD Electronic Submission Web Site at www.dodsbir.net/submission) In addition, monthly status and progress reports may be required by the DoD agency.

b. Preparation.

- (1) If desirable, language used by the company in its Phase II proposal to report Phase I progress may also be used in the final report.
- (2) For each unclassified report, the company submitting the report should fill in block 12a (Distribution/Availability Statement) of the SF298, "Report Documentation Page" with one of the following statements:
 - (a) Approved for public release; distribution unlimited.
 - (b) Distribution authorized to U.S. Government Agencies only; contains proprietary information.

 Note: The sponsoring DoD activity, after reviewing the company's entry in block 12a, has final responsibility for assigning a distribution statement.
- (3) Block 13 (Abstract) of the SF 298, "Report Documentation Page" must include as the first sentence, "Report developed under STTR contract for topic [insert solicitation topic number]". The abstract must identify the purpose of the work

and briefly describe the work carried out, the finding or results and the potential applications of the effort. Since the abstract will be published by the DoD, it must not contain any proprietary or classified data.

- (4) Block 14 (Subject Terms) of the SF 298 must include the term "STTR Report".
- c. **Submission**. The company shall submit <u>FIVE COPIES</u> of the final report on each Phase I project to the DoD in accordance with the negotiated delivery schedule. Delivery will normally be within thirty days after completion of the Phase I technical effort. The company shall, at the same time, submit <u>ONE ADDITIONAL COPY</u> of each report directly to the DTIC (unless instructed otherwise by the sponsoring DoD activity in the Phase I contract):

ATTN: DTIC-OCA Defense Technical Information Center 8725 John J Kingman Road, Suite 0944 Ft. Belvoir, VA 22060-6218.

If the report is classified, the sponsoring DoD activity will provide special submission instructions. *Note: The sponsoring DoD activity has final responsibility for ensuring that the company or the DoD activity provide DTIC with all applicable Phase I and Phase II technical reports, classified and unclassified, developed under STTR contract, per DoD Directive 3200.12 (http://web7.whs.osd.mil/dodiss/directives/direct2.htm).*

5.4 Commercialization Updates in Phase II

If, after completion of Phase I, the contractor is awarded a Phase II contract, the contractor shall be required to periodically update the following commercialization results of the Phase II project through the Web Site at www.dodsbir.net/submission:

- a. Sales revenue from new products and non-R&D services resulting from the Phase II technology;
- b. Additional investment from sources other than the federal SBIR/STTR program in activities that further the development and/or commercialization of the Phase II technology;
- Whether the Phase II technology has been used in a fielded DoD system or acquisition program and, if so, which system or program;
- d. The number of patents resulting from the contractor's participation in the SBIR/STTR program;
- e. Growth in number of firm employees; and
- f. Whether the firm has completed an initial public offering of stock (IPO) resulting, in part, from the Phase II project.

These updates on the project will be required one year after the start of Phase II, at the completion of Phase II, and subsequently when the contractor submits a new SBIR or STTR proposal to DoD. Firms that do not submit a new proposal to DoD will be asked to provide updates on an annual basis after the completion of Phase II.

5.5 Payment Schedule

The specific payment schedule (including payment amounts) for each contract will be incorporated into the contract upon completion of negotiations between the DoD and the successful Phase I or Phase II offeror. Successful offerors may be paid periodically as work progresses in accordance with the negotiated price and payment schedule. Phase I contracts are primarily fixed price contracts, under which monthly payments may be made. The contract may include a separate provision for payment of a fee or profit. Final payment will follow completion of contract performance and acceptance of all work required under the contract. In all cases, Components must make payment to recipients under STTR funding agreements in full, subject to audit, on or before the last day of the 12-month period beginning on the date of the completion of award. Other types of financial assistance may be available under the contract.

5.6 Markings of Proprietary Proposal Information

The proposal submitted in response to this solicitation may contain technical and other data which the proposer does not want disclosed to the public or used by the Government for any purpose other than proposal evaluation.

Information contained in unsuccessful proposals will remain the property of the proposer except for the Proposal Cover Sheet. The Government may, however, retain copies of all proposals. Public release of information in any proposal submitted will be subject to existing statutory and regulatory requirements.

If proprietary information is provided by a proposer in a proposal which constitutes a trade secret, proprietary commercial or financial information, confidential personal information or data affecting the national security, it will be treated in confidence, to the extent permitted by law, provided this information is clearly marked by the proposer with the term "PROPRIETARY" (not "Company Confidential") and provided that the following legend which appears on the Proposal Cover Sheet (Section 3.4) of the proposal is completed:

"For any purpose other than to evaluate the proposal, the data referenced below shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed in whole or in part, provided that if a contract is awarded to the proposer as a result of or in connection with the submission of this data, the Government shall have the right to duplicate, use or

disclose the data to the extent provided in the funding agreement. This restriction does not limit the Government's right to use information contained in the data if it is obtained from another source without restriction. The data subject to this restriction is contained on the pages of the proposal listed on the line below."

Any other legend may be unacceptable to the Government and may constitute grounds for removing the proposal from further consideration and without assuming any liability for inadvertent disclosure. The Government will limit dissemination of properly marked information to within official channels.

In addition, each page of the proposal containing proprietary data which the proposer wishes to restrict must be marked with the following legend:

"Use or disclosure of the proposal data on lines specifically identified by asterisk (*) are subject to the restriction on the Cover Sheet of this proposal."

If all of the information on a particular page is proprietary, the proposer should so note by including the word "PROPRIETARY" (not "Company Confidential") in both the header and footer on that page.

The Government assumes no liability for disclosure or use of unmarked data and may use or disclose such data for any purpose.

In the event properly marked data contained in a proposal in response to this solicitation is requested pursuant to the Freedom of Information Act, 5 USC 552, the proposer will be advised of such request and prior to such release of information will be requested to expeditiously submit to the DoD Component a detailed listing of all information in the proposal which the proposer believes to be exempt from disclosure under the Act. Such action and cooperation on the part of the proposer will ensure that any information released by the DoD Component pursuant to the Act is properly determined.

Classified proposals will not be accepted under the DoD STTR program.

5.7 Copyrights

To the extent permitted by statute, the awardee may copyright (consistent with appropriate national security considerations, if any) material developed with DoD support. DoD receives a royalty-free license for the Federal Government and requires that each publication contain an appropriate acknowledgment and disclaimer statement.

5.8 Patents

Small business firms normally may retain the principal worldwide patent rights to any invention developed with Government support. The Government receives a royalty-free license for its use, reserves the right to require the patent holder to license others in certain limited circumstances, and requires that anyone exclusively licensed to sell the invention in the United States must normally manufacture it domestically. To the extent authorized by 35 USC 205, the Government will not make public any information disclosing a Government-supported invention for a period of five years to allow the awardee to pursue a patent.

5.9 Technical Data Rights

Rights in technical data, including software, developed under the terms of any contract resulting from proposals submitted in response to this solicitation generally remain with the contractor, except that the Government obtains a royalty-free license to use such technical data only for Government purposes during the <u>period commencing with contract award and ending five years after completion of the project</u> under which the data were generated. Upon expiration of the five-year restrictive license, the Government has unlimited rights in the STTR data. During the license period, the Government may not release or disclose STTR data to any person other than its support services contractors except: (1) For evaluational purposes; (2) As expressly permitted by the contractor; or (3) A use, release, or disclosure that is necessary for emergency repair or overhaul of items operated by the Government. See DFARS clause 252.227-7018, "Rights in Noncommercial Technical Data and Computer Software -- STTR Program."

5.10 Research and Analytical Work

For Phase I and II, a minimum of <u>40 percent</u> of the research and/or analytical work must be performed by the proposing firm and a minimum of <u>30 percent</u> performed by the research institution, unless otherwise approved in writing by the contracting officer. The percentage of work is usually measured by both direct and indirect costs, although proposers planning to subcontract a significant fraction of their work should verify how it will be measured with their contracting officer during contract negotiations.

5.11 Contractor Commitments

Upon award of a contract, the contractor will be required to make certain legal commitments through acceptance of Government contract clauses in the Phase I contract. The outline that follows is illustrative of the types of provisions required by the Federal Acquisition Regulations that will be included in the Phase I contract. This is not a complete list of provisions to be

included in Phase I contracts, nor does it contain specific wording of these clauses. Copies of complete general provisions will be made available prior to award.

- a. **Standards of Work**. Work performed under the contract must conform to high professional standards.
- b. **Inspection**. Work performed under the contract is subject to Government inspection and evaluation at all reasonable times.
- c. **Examination of Records**. The Comptroller General (or a fully authorized representative) shall have the right to examine any directly pertinent records of the contractor involving transactions related to this contract.
- d. **Default**. The Government may terminate the contract if the contractor fails to perform the work contracted.
- e. **Termination for Convenience**. The contract may be terminated at any time by the Government if it deems termination to be in its best interest, in which case the contractor will be compensated for work performed and for reasonable termination costs.
- f. **Disputes**. Any dispute concerning the contract which cannot be resolved by agreement shall be decided by the contracting officer with right of appeal.
- g. Contract Work Hours. The contractor may not require an employee to work more than eight hours a day or forty hours a week unless the employee is compensated accordingly (that is, receives overtime pay).
- h. **Equal Opportunity**. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin.
- i. **Affirmative Action for Veterans**. The contractor will not discriminate against any employee or applicant for employment because he or she is a disabled veteran or veteran of the Vietnam era.
- j. **Affirmative Action for Handicapped**. The contractor will not discriminate against any employee or applicant for employment because he or she is physically or mentally handicapped.
- k. Officials Not to Benefit. No member of or delegate to Congress shall benefit from the contract.
- Covenant Against Contingent Fees. No person or agency has been employed to solicit or secure the contract upon an
 understanding for compensation except bona fide employees or commercial agencies maintained by the contractor for the
 purpose of securing business.
- m. Gratuities. The contract may be terminated by the Government if any gratuities have been offered to any representative of the Government to secure the contract.
- n. Patent Infringement. The contractor shall report each notice or claim of patent infringement based on the performance of the contract.
- o. **Military Security Requirements**. The contractor shall safeguard any classified information associated with the contracted work in accordance with applicable regulations.
- p. **American Made Equipment and Products**. When purchasing equipment or a product under the STTR funding agreement, purchase only American-made items whenever possible.

5.12 Contractor Registration

Before DoD can award a contract to a successful proposer under this solicitation, the proposer must be registered in the DoD Central Contractor Registration (CCR) database. The CCR allows Federal Government contractors or firms interested in conducting business with the DoD to provide basic information on business capabilities and financial information. To register, visit www.ccr.gov or call 1-888-227-2423.

5.13 Additional Information

- a. **General**. This Program Solicitation is intended for informational purposes and reflects current planning. If there is any inconsistency between the information contained herein and the terms of any resulting <u>STTR contract</u>, the terms of the contract are controlling.
- b. **Small Business Data**. Before award of an STTR contract, the Government may request the proposer to submit certain organizational, management, personnel, and financial information to confirm responsibility of the proposer.
- Proposal Preparation Costs. The Government is not responsible for any monies expended by the proposer before award of any contract.
- d. Government Obligations. This Program Solicitation is not an offer by the Government and does not obligate the Government to make any specific number of awards. Also, awards under this program are contingent upon the availability of funds.
- e. **Unsolicited Proposals**. The STTR Program is not a substitute for existing unsolicited proposal mechanisms. Unsolicited proposals will not be accepted under the STTR Program in either Phase I or Phase II.
- f. **Duplication of Work**. If an award is made pursuant to a proposal submitted under this Program Solicitation, the contractor will be required to certify that he or she has <u>not previously</u> been, nor is <u>currently</u> being, paid for essentially <u>equivalent work</u> by an agency of the Federal Government.
- g. Classified Proposals. Classified proposals are not accepted under the DoD STTR program.

6.0 SUBMISSION OF PROPOSALS

Each proposal must be prepared on the DoD Electronic Submission Web Site at www.dodsbir.net/submission and contain a completed:

- Proposal Cover Sheets,
- Technical Proposal,
- Cost Proposal, and
- Company Commercialization Report.

Refer to the Component instructions in Section 8.0 for details on whether the entire proposal must be submitted electronically via the Web Site or proposal packages should be mailed or hand carried with hard copy print outs of the proposal cover sheets and Company Commercialization Reports created on the Web Site.

6.1 Electronic Proposal Submission

For DoD Components requiring complete electronic proposal submission on the DoD Electronic Submission Web Site, first prepare the proposal cover sheets (select "Prepare/Edit Phase I Cover Sheets" from the Main Menu). The site will assign the cover sheets a proposal number, which will be used for tracking throughout the submission process. Prepare the technical proposal in a <u>single PDF</u> file, check it for viruses, and upload it to the Web Site, following instructions on the web site. The cost proposal may be submitted either using the on-line form or as the last page(s) of your technical proposal file (unless otherwise specified in the Component's instructions, see Section 8.0). Prepare the Company Commercialization Report (by selecting "Prepare/Edit Company Commercialization Report" from the Main Menu).

Technical proposals should be a single file, including all graphics and attachments, should have the company name, topic number, and proposal number (from the cover sheets) in the header, and should be in Portable Document Format (PDF). Offerors are responsible for performing a virus check on each technical proposal prior to uploading. Every uploaded file will be scanned for viruses. If a virus is detected, the file will be deleted and may cause rejection of the proposal.

Once uploaded, the technical proposal file may be viewed or down loaded from the Web Site by clicking on the Check Upload button. Offerors are responsible for verifying the technical proposal was received and converted properly. Technical proposals may be uploaded as often as necessary, each time overwriting the file previously submitted.

Signatures are not required on the cover sheets, cost proposal, and Company Commercialization Report at the time of submission for electronic submission. If the proposal is selected for award, the DoD Component program will contact you for signatures.

All completed proposals (i.e., those with complete cover sheets, technical proposal, cost proposal, and Company Commercialization Report) not marked for deletion by the solicitation close deadline will be evaluated.

6.2 Mailed or Hand Carried Proposal Submission

For DoD Components requiring hard copy proposal submission, prepare the proposal cover sheets and Company Commercialization Report on the DoD Electronic Submission Web Site. The cost proposal may also be prepared on the Web Site using the on-line form. Print out all completed forms and reports, and sign and date. Assemble the proposal package in the following order: cover sheets, technical proposal, cost proposal, and Company Commercialization Report. An original plus four (4) copies of each proposal or modification will be submitted, in a single package, as described below, unless otherwise stated by specific instructions in Section 8.0.

Each proposal or modification thereof shall be submitted in sealed envelopes or packages addressed to the DoD Component address which is identified for the specific topic in that Component's subsection of Section 8.0 to this solicitation.

The name and address of the offeror, the solicitation number, the topic number for the proposal, and the time and date specified for proposal receipt must be clearly marked on the outside of the envelope or package. To protect your proposal against rough handling, damage in the mail, and the possibility of unauthorized disclosures, it is recommended that your proposal be double-wrapped and that both the inner and outer envelopes or wrappings be clearly marked.

Offerors using commercial carrier services shall ensure that the proposal is addressed and marked on the outermost envelope or wrapper as prescribed above.

Mailed or hand carried proposals must be delivered to the address indicated for each topic. Secured packaging is mandatory. The DoD Component cannot be responsible for the processing of proposals damaged in transit.

All copies of a proposal must be sent in the same package. Do not send separate information copies or several packages containing parts of the single proposal.

6.3 Deadline of Proposals

Proposals are accepted from March 3, 2003 to April 16, 2003. Deadline for electronic receipt of proposals is 5:00 p.m. EST, April 16, 2003 and is 5:00 p.m. EST at the DoD Component, April 16, 2003 for mailed or hand carried proposal submission. The solicitation deadline is firm and will not be extended. As the close date draws near, heavy traffic on the web server may cause

delays. Plan ahead and leave ample time to prepare and submit your proposal. Offerors bear the risk of website inaccessibility due to heavy usage in the final hours before the solicitation closing time.

Any proposal, modification, or revision not completely submitted by the exact time specified for receipt of offers and received at the office designated in the solicitation is "late" and will not be considered unless:

- (a) it was sent by registered or certified mail not later than April 10, 2003; or
- (b) it was sent by U.S. Postal Service Express Mail Next Day Service-Post Office to Addressee, not later than 5:00 p.m. at the place of mailing on April 15, 2003.
- (c) it was received electronically through the DoD SBIR/STTR Submission site not later than 5:00 p.m. on April 15, 2003 (in accordance with FAR 52.215-1(c)(3)).

Note: There are no other provisions for late receipt of proposals under this solicitation.

The only acceptable evidence to establish the date of mailing of a late proposal sent either by registered or certified mail is the U. S. Postal Service postmark on the envelope or wrapper and on the original receipt from the U.S. Postal Service. Both postmarks must show a legible date or the proposal shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U. S. Postal Service on the date of mailing. Therefore, offerors or respondents should request the postal clerk to place a legible hand cancellation bull's-eye postmark on both the receipt and the envelope or wrapper. Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of the installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel. The only acceptable evidence to establish the date of mailing of a late proposal sent by Express Mail Next Day Service-Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service-Post Office to Addressee" label and the postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. Therefore, offerors should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.

Proposals may be withdrawn by written notice or a telegram received at any time prior to award. Proposals may also be withdrawn in person by an offeror or his authorized representative, provided his identity is made known and he signs a receipt for the proposal. (Note: the term telegram includes mailgrams.)

Any modification or withdrawal of a proposal is subject to the same conditions outlined above. Any modification may not make the proposal longer than 25 pages (excluding Company Commercialization Report). Notwithstanding the above, a late modification of an otherwise successful proposal which makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

6.4 Notification of Proposal Receipt

Components generally provide notification of proposal receipt via email.

6.5 Information on Proposal Status

Evaluation of proposals and award of contracts will be expedited, but no information on proposal status will be available until the final selection is made. However, contracting officers may contact any and all qualified proposers prior to contract award. Selections are posted on the DoD SBIR/STTR Web Site and Resource Center Web Site approximately six months after the solicitation close date.

6.6 Debriefing of Unsuccessful Offerors

An unsuccessful offeror that submits a <u>written request</u> for a debriefing within 30 days of being notified that its proposal was not selected for award will be provided a debriefing. The written request should be sent to the DoD organization that provided such notification to the offeror. Be advised that an offeror that fails to submit a timely request is not entitled to a debriefing, although untimely debriefing requests may be accommodated at the Government's discretion.

6.7 Correspondence Relating to Proposals

All correspondence relating to proposals should cite the STTR solicitation number, proposal number, and specific topic number and should be addressed to the DoD Component whose address is associated with the specific topic number.

7.0 SCIENTIFIC AND TECHNICAL INFORMATION ASSISTANCE

7.1 DoD Technical Information Services Available

The Defense Technical Information Center (DTIC) provides background technical information services at no cost, which can assist SBIR/STTR participants in proposal preparation, product development, marketing and networking.

The DTIC SBIR/STTR web site provides the following free services at http://www.dtic.mil/dtic/sbir:

- Public STINET and Web Enabled DROLS (WED): Access DTIC's online technical databases including 37,000 plus full-text downloadable documents.
- 2. **OLTIPS** has bibliographies for each DoD SBIR and STTR topic
- 3. **Technical Reports**: Up to ten hard copy technical reports are available at no cost from DTIC during an SBIR, or a combined SBIR/STTR, solicitation period. Additional reports can be charged to a credit card or deposit account.
- 4. TRAIL: provides biweekly listings of new DTIC accessions matching the recipient's interests
- 5. **SITIS**: Interactive question and answer forum for specific technical questions concerning DoD topics, changes, and topic reference information. (See Section 1.5c)

DTIC is a major component of the DoD Scientific and Technical Information Program, making available technical information resulting from DoD-funded research and development (www.dtic.mil). DTIC also provides access to specialized information services. MATRIS is the focal point for information on manpower, training systems, human performance, and human factors (http://dtica.dtic.mil). The Information Analysis Centers (IACs) are the DoD centers of expertise concerned with engineering, technical and scientific documents and databases worldwide (www.dtic.mil/iac/).

Call DTIC (or visit by prearrangement at the location most convenient to you).

ATTN: DTIC-SBIR

Defense Technical Information Center 8725 John J Kingman Road, Suite 0944

Ft. Belvoir, VA 22060-6218 Ph: (800) 363-7247 Fax: (703) 767-8228 Email: sbir@dtic.mil

www: http://www.dtic.mil/dtic/sbir

ATTN: DTIC-BPB

DTIC Northeastern Regional Office

DTIC-BOS 5 Wright Street Hanscom AFB

Bedford, MA 01731-3012 Ph: (781) 377-2413 Fax: (781) 377-5627 Email: boston@dtic.mil

DTIC Southwestern Regional Office

ATTN: DTIC-BRNA
AFRL/VSIL/DTIC
3550 Aberdeen Ave, SE
Kirtland AFB, NM 87117-5776
Ph: (505) 846-6797

Ph: (505) 846-6797 Fax: (505) 846-6799 Email: <u>albuq@dtic.mil</u>

ATTN: DTIC-BPD

DTIC Midwestern Regional Office

Bldg. 196, Area B 2261 Monahan Way

Wright-Patterson AFB, OH 45433-7022

Ph: (937) 255-7905 Fax: (937) 656-7002 Email: dayton@dtic.mil ATTN: DTIC-BPL

DTIC Western Regional Office

Bldg. 80

El Segundo, CA 90245-4659 Ph: (310) 363-8980 Fax: (310) 363-8972 Email: losangel@dtic.mil

2420 Vela Way, Suite 1467

Many of the topics in Section 8 contain references to technical literature or military standards, which may be accessed as follows:

- References with "AD" numbers are available from DTIC, by calling 800/DoD-SBIR or sending an e-mail message to sbir@dtic.mil, or using the Document Request form at www.dtic.mil/dtic/sbir/service_req.html. Newer reports may be available for download after searching http://stinet.dtic.mil.
- References with "MIL-STD" numbers are available from the Department of Defense Single Stock Part for Military Specifications, Standards, and Related Publications at www.dodssp.daps.mil/ (or using the DTIC STINET interface at http://stinet.dtic.mil/str/dodiss4 fields.html.
- Other references can be found in your local library or at locations mentioned in the reference. Check SITIS for additional availability information.

7.2 State and Other Assistance Available

Many states have established programs to provide services to those small firms and individuals wishing to participate in the Federal SBIR Program. These services vary from state to state, but may include:

- Information and technical assistance;
- Matching funds to SBIR recipients;
- Assistance in obtaining Phase III funding.

Contact your State SBIR Support office at www.ed.gov/offices/OERI/SBIR/statelink.html for further information.

Small Businesses may seek general administrative guidance from small and disadvantaged business utilization specialists located in various Defense Contract Management activities throughout the continental United States.

8.0 TECHNICAL TOPICS

Section 8 contains detailed topic descriptions outlining the technical areas in which DoD Components request proposals for innovative R&D from small businesses. Topics for each participating DoD Component are listed and numbered separately.

Each DoD Component Topic Section contains topic descriptions, addresses of organizations to which proposals are to be submitted, and special instructions for preparing and submitting proposals to organizations within the Component. Read and follow these instructions <u>carefully</u> to help avoid administrative rejection of your proposal.

Component Topic Sections	<u>Pages</u>
Army	ARMY 1-35
Navy	NAVY 1-36
Air Force	AF 1-34
Defense Advanced Research Projects Agency	DARPA 1-10
Missile Defense Agency	MDA 1-11